EXECUTIVE SUMMARY

California is experiencing major problems with electricity supply and pricing caused by policies and procedures adopted over the past ten years. This summer, California has seen both electricity price volatility – exemplified by huge increases in wholesale electric prices and increases in retail prices in San Diego – and supply and delivery system instability – culminating in unprecedented black-outs in the Bay Area. These serious, but thus far isolated, examples represent a precursor of what lies ahead for California's economy over the next 30 months. California's reliability deficits and retail price volatility may not improve in that time without a mid-course correction.

I. Sharply Higher San Diego Prices and Bay Area Black-Outs Warrant Major Concern.

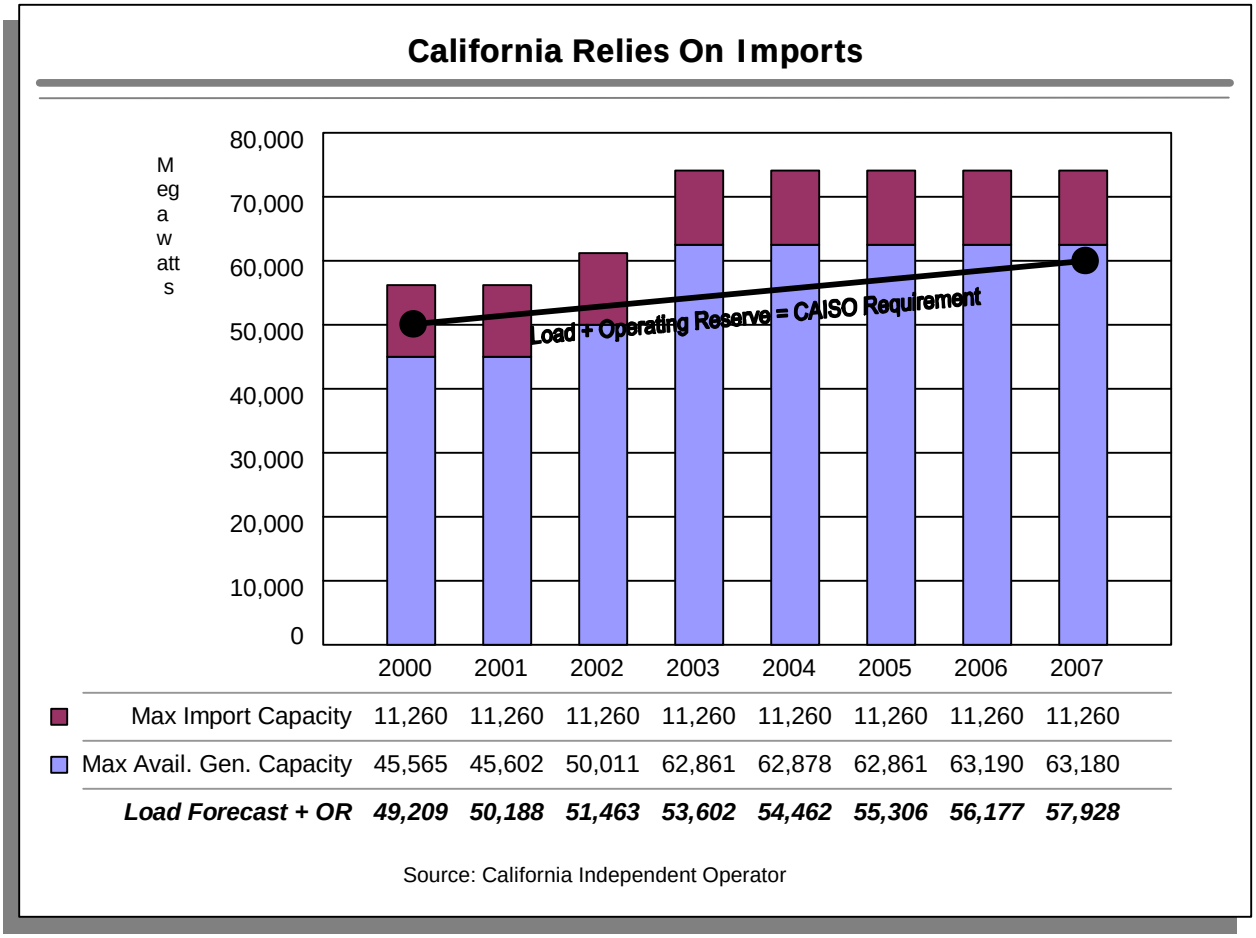
Since June, wholesale prices for electrical power in California have increased on average 270% over the same period in 1999, resulting in over $1 billion in excess payments for electricity. During the week of June 14, purchasers of California power spent $1.2 billion on electricity, 300% more than they paid during the same period in l999 and 1/8th of their cost of power for all of 1999. Had the 1999 price cap of $250/MW been in place in 2000, electricity purchasers would have saved $110 million on June 14 alone. San Diegans -- the first to be exposed to unregulated electricity prices – saw their June electricity bills double. Other Californians are protected temporarily by retail rate freezes scheduled to expire no later than December 31, 2001.

Hot weather, aging power plant and transmission infrastructure, and dysfunctional bidding behavior in the wholesale power markets combined to drive prices up and to create inadequate electricity supplies in the Bay Area. Changes in power system governance resulted in PG&E being ordered to black-out over 100,000 of its customers – without an ability for the State to weigh in on that decision.

The Bay Area black-outs, the run up in prices in the wholesale electricity markets, and the rise in retail electricity prices in San Diego show that the new system is not working for California. Because of serious market defects and tight supply of electricity, purchasers of California power will likely pay billions more in electricity costs this year. Moreover, these price increases do not necessarily fund new investments in electricity supply or delivery reliability – they may flow solely to power producer profit margins.

As the following chart indicates, supply projections demonstrate California must tackle these problems in the immediate term. California cannot solve its

immediate supply shortage by simply waiting or solely by building power plants that cannot come on line for several years.



	2000	2001	2002	2003	2004	2005	2006	2007
Max Import Capacity	11,260	11,260	11,260	11,260	11,260	11,260	11,260	11,260
Max Avail. Gen. Capacity	45,565	45,602	50,011	62,861	62,878	62,861	63,190	63,180
Load Forecast + OR	***49,209***	***50,188***	***51,463***	***53,602***	***54,462***	***55,306***	***56,177***	***57,928***

Source: California Independent Operator

Because of the policies and procedures adopted over the last ten years, the data we need to assess wholesale market pricing and supply scheduling behavior is in the hands of two private, autonomous entities: the California Independent System Operator and the Power Exchange. Despite the Electricity Oversight Board's legislative mandate to oversee those institutions, we have been unable to obtain this data. Nevertheless, as detailed in Section II, we believe enough evidence of questionable behavior exists that the Attorney General should conduct an investigation into these statewide market practices, coordinating with other State agencies, including the PUC and the EOB. Such an investigation would provide the factual foundation that California policymakers and regulators need to recover any illegally obtained profits. Further, the ability of State regulators to obtain information from industry participants and to set and enforce standards is an essential element in restoring stability and predictability for California consumers.

II. The New Structure of California's Electricity Market Federalized Electricity Regulation and Limited California's Ability to Protect California Business and Consumers.

The complexity of California's problems is a reflection of the complexity of its new market structure. California embarked on an experiment to redesign the electric industry during the 1990s. Past administrations split up California's integrated electricity system, previously dominated by state-regulated utilities, into isolated components and opened the electricity generation component to market competition. The theory behind this policy shift was that competition would lower consumer prices and encourage cleaner, non-nuclear power sources. As the Los Angeles Times succinctly stated "Cheap, reliable power was the aim in the dismantling of a decades-old system of utility monopolies that generated and delivered power and regulators that decided what customers would pay."[1] That system caused business and consumer outcry that Californians were paying on average 50% more for electricity than other states and concerns that state policy favored nuclear and heavily polluting power plants, stifling cleaner, more efficient options.

Although laudable, the promises of that restructuring experiment have not materialized. Californians still pay substantially more on average than counterparts in other states who have not shifted to competitive market structures. Compounding the problem, decisionmakers in past administrations traded away the State of California's ability to project, plan for and act to control electricity supply shortages and wholesale and retail price run ups. A momentous consequence of California's attempt to create a market in electricity is that the federal government now regulates California's electric system. Washington D.C. now controls pricing decisions directly at the wholesale level and indirectly at the retail level and, to the extent that supply incentives are correlated to prices, Washington, D.C. now affects California's ability to attract new investment in power plants.

In designing the new system, California policymakers relied on projections of supply and demand, and pricing theories flowing from those projections, that have not come true. Past Public Utilities Commission (PUC) and legislative decisions did not, as the Orange County Register noted, take consumer interests into account.[2] By handing the reins of California's electric system to federal regulators, the State of California no longer possesses the ability to protect California businesses and consumers.

Past administrations' willingness to cede the State's authority to the federal government combined with the legislative creation of two non-public supervisory organizations that have no duty to protect the public or consider the retail customer. The "Independent System Operator" (ISO) and the "Power Exchange"

[1] LA Times, July 29, 2000, p. A8.
[2] Orange County Register, July 23, 2000

(PX), the nonprofit private corporations that operate the State's transmission system and control wholesale pricing policies, are governed by boards whose members can have serious conflicts of interest. Some of these board members or their companies financially benefit from higher prices in electricity markets. Neither of these private organizations is accountable to the State or its consumers, and neither is charged with the task of keeping electricity prices reasonable for consumers and businesses.

The State of California no longer possesses the tools to ensure that its citizens can procure reliable electric service at reasonable prices. Delegating the State's responsibility to assure reasonable electricity prices and to assure the safe delivery of power, has produced unacceptable costs. Electricity is too fundamental a necessity for California's economy and indeed for every Californian to leave accountability for its delivery and pricing so fragmented.

III. State Decision-Makers Must Tackle Each of Four Separate Components That Jointly Affect Electricity Reliability and Prices.

California possesses few options to turn back the clock. Any significant change in direction would cause its own disruptions. But to do nothing in hopes that the market will self-correct, perhaps years from now, could stall California's economic expansion because business needs reliable electricity supplies and stable and reasonable electricity rates to continue to grow. Moreover, it is irresponsible to impose severe economic hardship on those consumers caught in the crossfire as California develops a workable electricity market.

Much depends on the willingness of federal regulators to cooperate. California may not be able to develop a workable electric market and to fulfill the promises made to California consumers and businesses throughout the 1990s. But, this Administration should do its best to make good on others' promises before concluding that electricity markets cannot become competitive.

Within this overall context, we offer the following recommendations. Ideas abound about how to fix the electricity market in California. However, to address only one component of the energy equation without also addressing the others is likely to fail. To act effectively, California decision-makers must tackle four fundamental and intertwined components of the electricity problem:

- **Enhance the State of California's Ability to Protect Consumers and Hold Market Players Accountable.**

  Despite the federalization and the fragmentation of the State's electric services, the State of California should protect its businesses and consumers from cartel pricing; collusive behavior; inadequate power plant maintenance and lack of market planning for adequate electricity supplies. The State of

California must try to deliver on past promises to create a workable market while shielding businesses and consumers from the current market's flaws.

The two most important institutions controlling the sale and transmission of electricity in today's market—the ISO and the PX—are private, autonomous entities. Their governing boards include a large number of market participants, including those likely to profit the most from high prices. But the ISO and PX are not accountable to the State of California or to the ultimate consumers of electricity. The CPUC and the EOB will continue their investigation of this summer's events and enlist the Attorney General to determine how events transpired. Once facts have been developed, specific solutions to improper behavior can be developed.

- **Revitalize California's Commitment to Clean, Efficient Energy Use to Improve Electric System Reliability.**

  Power plant construction is a capital-intensive endeavor with long lead times. Today's policymakers should determine what constitutes adequate electricity capacity and should find ways to streamline plant siting and plant construction consistent with environmental requirements. The best way to address immediate shortfalls and to ensure clean and efficient energy generation is to invest in proven energy efficiency and renewable technologies and programs to reduce base load and peak demand.

  Environmental short-cuts will not resolve California's power needs for Summer 2000 or 2001 and even if tried will likely be precluded or delayed by federal environmental mandates and citizen suits. In the short-term, focusing on reducing base electricity demand through smart energy use and renewable energy sources holds the key to surviving Summer 2001 successfully. Moreover, transmission upgrades – especially in the Bay Area and San Diego – that can be accomplished within one year should also be made a priority. In the longer term, determining what additional supply is needed and where—and building it—should be addressed.

- **Address Wholesale Price Volatility in an Era of Electricity Shortages.**

  California must make federal regulators understand the effects of unmitigated wholesale prices on its economy and its citizens. The State and the ISO must speak with one voice before the FERC and request extensions of wholesale price cap authority and ask for a finding that California's wholesale electricity markets are not competitive.

  The California PX, as the primary market-maker for wholesale energy in California, should work with energy providers and consumers to make more products available to manage wholesale price risk. These options include alternatives to the single price auction in spot markets, and improved price

disclosure for the products traded on its exchange. These actions are necessary to provide California with the tools to manage California's developing wholesale electricity market.

- **Manage Retail Price Problems Until a Market Develops and is Fully Functional.**

  California consumers and businesses deserve to know in advance – as San Diegans did not this summer – how and when the price of an essential service like electricity will double. California is now largely constrained by federal mandates from providing comprehensive retail price relief as long as wholesale prices remain so high. If California tried to re-impose a price freeze in San Diego now, federal regulators would likely prevent that action. Emergency actions can alleviate some retail price shocks facing San Diego businesses and consumers caught unaware. Short-term price relief, however, cannot resolve market gaming or fundamental wholesale pricing problems controlled by federal regulators. Any effective plan offering rate relief for San Diegans must be based on a full understanding of the facts, and not on any premature rush to judgment.

  We have been precluded from obtaining the data necessary to know if the ISO and PX failed to detect manipulation and gaming on several fronts. We do not know how market players acted in price offering and bidding and scheduling. The FERC has just announced an inquiry into national pricing and energy market issues. California should not wait for national findings before it investigates California market practices. We recommend that the California Attorney General immediately subpoena relevant records and data to determine the pricing and offering behavior of market participants; the actions of the ISO and its board members; and the actions of generators in supplying California's energy needs. We intend to work jointly between the PUC and EOB to continue our current inquiry until we can answer unresolved questions and we welcome the Attorney General's participation to find the facts. These actions will provide a sound basis for determining whether the current excessive wholesale price levels are a temporary aberration, or a feature that may require more comprehensive action, such as direct retail price controls.

IV. Actions Must be Taken In Three Time-Frames to Implement the Four Recommendations.

Not only do we need to tackle four legs of California's energy security table, we must take action within appropriate timeframes. Neither the State nor the market can enact or implement all solutions or options immediately or even by Summer 2001 or 2002, when California power supplies will be stretched further still. Thus, some attractive options are not recommended for immediate action, as they cannot be completed or function immediately.

Nevertheless, California policymakers must respond to certain immediate problems now to ensure that the short-term crisis does not become chronic. The following recommendations are divided into those that (1) respond to the immediate risk of system crisis; (2) act now on options that will improve California's readiness for Summer 2001; (3) discuss and decide throughout the next six months longer term options and policy choices that respond to system inadequacies.

1. Ten Potential Actions to Prepare for an Electricity Emergency:

1. Require utilities to update outage plans to ensure that (a) the least possible number of customer black-outs in the event of an emergency; (b) essential services (hospitals, emergency dispatch, etc.) retain power and (c) any black-outs are fairly distributed among the State's affected population;
2. Authorize the California Public Utilities Commission working with the utilities to determine when to shut off electricity in a Stage 3 emergency;
3. Ensure that computer models used to predict and trigger black-outs and service interruptions are accurate and publicly certified so that black-outs and service interruptions do not occur unless no other option exists;
4. Call on the federal government and local governments to inventory emergency generation capability in California; institute preparedness plans to switch local and federal buildings to emergency generation to bring loads off the electric system in the a crisis;
5. Design gear-down plans (versus shut-down) to reduce unnecessary power use in all state facilities and request local and state facilities to do the same when electricity reserves drop below 5% -- such as turning off lobby lights; turning up air conditioning; turning off nonessential lights, equipment and technology;
6. Hook up commercial buildings, on a voluntary basis through the internet, to an emergency management control system to enable reductions in unnecessary commercial power use (turning off lobby lighting; turning up air conditioning; turning off nonessential lights, equipment and technology) when reserves drop below 5%;
7. Require utilities to identify large electricity users in each region and to develop with these customers a program voluntarily to shed nonessential load in emergencies;
8. Identify, prioritize and coordinate with state and regional agencies, private companies and utilities to obtain air emissions offsets and credits to run existing emergency generation;
9. Coordinate with utilities and municipal power agencies to identify and prioritize additional sources of emergency generation available for emergency use.
10. Inventory all state emergency generation; test it for readiness and prepare to switch state buildings to emergency generation to bring state loads off the electric system in a Stage 3 emergency;

2. Ten Actions to Consider or Act Upon to Prevent Current Electricity Problems From Spreading in 2001:

1. Request that the Attorney General expand his investigation statewide and launch PUC/EOB investigation of market manipulation in wholesale electricity purchasing, scheduling and pricing, coordinating with the California Attorney General;
2. Create a California Energy Council, modeled on the National Security Council, to unify State action to resolve energy problems and to perform integrated energy planning;
3. Ask FERC for extended wholesale price cap authority to moderate California wholesale market pricing;
4. Ask FERC to recognize the defects in the California and western regional markets and find that no competitive market exists in California power markets;
5. Invest in an effective energy efficiency programs to reduce base load, including, assuring energy efficiency in all state buildings;
6. Invest in demand side management/load shifting programs to reduce peak loads;
7. Invest in renewable energy development that can be up and running for Summer 2001;
8. Eliminate potential conflicts of interest in ISO/PX stakeholder boards;
9. Improve California's ability to obtain ISO and generator data and enhance the State's enforcement capability for power plant maintenance; price manipulation and generation gaming, consistent with protection of proprietary business information;
10. Provide the EOB with effective enforcement ability and additional oversight authority for the ISO and PX.

3. Ten Issues to Consider or Act Upon Within the Next Six Months:

1. Given that retail price caps might result in unintended consequences and further market disruption, it is essential to investigate the impacts of modifying those price caps. After establishing the facts, address feasibility of imposing transitional retail price caps in San Diego;
2. Evaluate additional price management tools for utilities, including bilateral contracts and hedging authority;
3. Revise and accelerate Title 24 building standards to reduce unnecessary energy use;
4. Streamline state power plant siting procedures; consistent with environmental requirements, and prioritize applications to advance clean, BACT+ power plant proposals.
5. Institute "use-it -or- lose-it" permitting power plant licensing and emissions credits rules to ensure power plants get built;

6. Invest in targeted transmission upgrades to add capacity and enhance system reliability by Summer 2001, especially in San Diego and San Francisco;
7. After establishing the facts, procedural options, and long-term consequences, address feasibility of extending the transition period and retail rate freeze throughout the State;
8. Reform PX pricing protocols and structures to lower wholesale and retail prices and reduce excess profits;
9. Evaluate utilities' role as providers of last resort;
10. Determine distribution generation standards and rules for small power generator connection to the electricity grid;

As California policymakers engage in developing solutions to these complicated and interrelated energy problems, additional and longer-term issues could also be addressed. We discuss some of these options in the Recommendations Section and invite other creative solutions to be placed on the policy table.

There are no simple solutions. But a responsible approach to the current crisis requires recognition that a reliable, reasonably priced electricity supply constitutes an essential underpinning of California's economy and society. We must act on the basis of facts, not theories or assumptions. And we must understand how each piece of the energy puzzle affects the whole picture as we act.